

XP LLD Commissioning

- **Purpose**

- **Characterization**

- Use XP827(09) to obtain LLD performance data to meet the FY10 Milestone, and qualify LLD for use as an operational tool for the duration of the 2010 Run.

- **Complete FY10 LLD Milestone**

- “Install LLD. Determine the relationship between lithiated surface conditions and edge and core plasma conditions. To understand pumping, D retention will be studied as a function of surface conditions such as: Li coverage and LLD surface temperature, and plasma exhaust parameters such as: scrape-off layer density, temperature, strike-point location, and flux expansion.”

- **Method (20-40mg/min, 205°C)**

- Use XP-827(2009), High- δ and Low- δ discharges (on LLD) in the following sequence, and repeat the cycle during the entire run to capture changes*

- *3 shots High- δ with LITER; 3 shots High- δ , no LITER*

- *3 shots Low- δ on LLD with LITER; 3 shots Low- δ on LLD no LITER*

- **Required Run Time**

- 4 weeks total: first, 5 full days and then, 0.5 days thereafter spread over the run between other XPs.